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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,660	07/28/2003	Ramabadran S. Raghavan	LUCW:0003	4409
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FLETCHER YODER (LUCENT) P.O. BOX 692289 HOUSTON, TX 77069			EXAMINER AJIBADE AKONAI, OLUMIDE	
			ART UNIT	PAPER NUMBER
			2617	
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			03/25/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/628,660	Applicant(s) RAGHAVAN ET AL.	
	Examiner OLUMIDE T. AJIBADE AKONAI	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22, 24 and 25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22, 24 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In view of the decision by the Board of Patent Appeals and Interferences filed on 12/31/09, PROSECUTION IS HEREBY REOPENED. A new grounds of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37.

A Technology Center Director has approved of reopening prosecution by signing below:

Response to Arguments

2. Applicant's arguments with respect to claims 1-5, 8-12, 15, 17-22, 24 and 25 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-5, 8-12, 15, 17-22, 24 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by **Scheinert et al 7,117,015 (hereinafter Scheinert)**.

Regarding **claim 1**, Scheinert discloses a transceiver unit (IBS 42, see figs. 4 and 5, col. 5, lines 4-7) for use with a wireless communications system (see figs. 4 and 5, col. 5, lines 11-15, col. 6, lines 54-57), the transceiver unit comprising: an antenna (see figs. 4 and 5, col. 5, lines 16-17 and lines 49-57) configured to receive a wireless transmission from a mobile device (handset 24, see figs. 4 and 5, col. 5, lines 16-17 and lines 49-57); and a communication interface, coupled to the antenna, and configured to facilitate communication between the transceiver and an access network unit (Internet base station controller 48, see figs. 4 and 5, col. 4, lines 55-63, col. 5, lines 4-7) over an undedicated public network (IBS 42 is connected via internet links to IBSC 48, indicating presence of an interface in the IBS 42, that is attached to the antenna of the IBS 42 and transmits data/information received by the antenna to the IBSC 48, see col. 4, lines 55-63, col. 5, lines 4-7, col. 9, lines 28-32), wherein the communication between the transceiver and the access network unit is independent of a dedicated connection (IBS

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42 is connected via internet links to IBSC 48 and the connection of IBS 42 to IBSC 48 is not via dedicated links, see col. 4, lines 55-65, col. 5, lines 4-7).

Regarding **claim 17**, Scheinert discloses a tangible medium having a software program for use in a wireless communications system, the software program comprising: at least one routine for facilitating communication of information over an undedicated public network (Internet, see figs. 4 and 5, col. 5, lines 4-7) between at least one base station (IBS 42, see figs. 4 and 5, col. 5, lines 4-7), which is adapted to communicate over an air interface (see col. 5, lines 49-52, col. 6, lines 54-54-67) with portable communications devices (handset 24, see figs. 4 and 5, col. 5, lines 4-7, 16-17 and lines 49-57), and a controller (Internet base station controller 48, see figs. 4 and 5, col. 4, lines 55-63, col. 5, lines 4-7), which is adapted to process information communicated with the at least one base station (IBSC 48 receiving information from IBS 42 over the IP network and managing the IBS 42, see col. 4, lines 55-63, col. 5, lines 4-15), wherein the controller is located between the base station and a service network (see figs. 4 and 5, col. 4, lines 29-38 and lines 59-64).

Regarding **claim 20**, Scheinert discloses a method of producing an information packet in a wireless communications system (see figs. 4 and 5, col. 5, lines 11-15, col. 6, lines 54-57), the method comprising the acts of: receiving information from a transceiver unit (IBS 42, see figs. 4 and 5, col. 5, lines 4-7) via an air interface (communication between the mobile station 24 and IBS 42, see col. 5, lines 16-19); processing the information to form an information packet suitable for transmission to an access network unit (IBS 42 transmits information/data received from handset 24 to

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Internet base station controller 48, indicating that the IBS 42 has a functionality to process data so that it can be properly transmitted to IBSC 48, see figs. 4 and 5, col. 4, lines 55-63, col. 5, lines 4-7, col. 9, lines 28-40) via an undedicated public network (Internet, see figs. 4 and 5, col. 5, lines 4-7); and transmitting the information packet to the access network unit independent of a dedicated connection (IBS 42 is connected via internet links to IBSC 48, indicating presence of an interface in the IBS 42, that is attached to the antenna of the IBS 42 and transmits data/information received by the antenna to the IBSC 48, and the connection of IBS 42 to IBSC 48 is not via dedicated links, see col. 4, lines 55-65, col. 5, lines 4-7, col. 9, lines 28-40).

Regarding **claim 2** as applied to claim 1, Scheinert further discloses wherein the communication interface comprises at least one protocol layer (IBS 42 with a communication interface for communicating with IBSC 48 via Internet 47, indicating at least a protocol layer in the IBS 42 for communication via the Internet links with the IBSC 48, see figs. 4 and 5, col. 4, lines 55-63, col. 5, lines 4-7).

Regarding **claim 3**, as applied to claim 2, Scheinert further discloses wherein the at least one protocol layer maintains an IP address of the access network (IBS 42 with a communication interface for communicating with IBSC 48 via Internet 47, using an IP address, indicating at least a protocol layer in the IBS 42 that uses an IP address for communication via the Internet links with the IBSC 48, see figs. 4 and 5, col. 4, lines 55-63, col. 5, lines 4-7, col. 8, lines 16-20).

Regarding **claim 4** as applied to claim 2, Scheinert further discloses wherein the at least one protocol layer converts information received from the access network unit

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over the public network to RF signals to be communicated by the transceiver over an air interface (IBS 42 is connected via internet links to IBSC 48, indicating presence of an interface in the IBS 42, that is attached to the antenna of the IBS 42 and transmits and receives data/information from the IBSC 48, indicating that the IBS 42 is able to format signals received from the IBSC 48 to the RF signals transmitted to the handset 24 over the air interface, see col. 4, lines 55-65, col. 5, lines 4-7, col. 9, lines 28-40).

Regarding **claim 5** as applied to claim 2, Scheinert further discloses wherein at least one protocol layer converts RF signals received by the transceiver over an air interface to information suitable for transmission over the public network to the access network controller (IBS 42 is connected via internet links to IBSC 48, indicating presence of an interface in the IBS 42, that is attached to the antenna of the IBS 42 and transmits data/information received by the antenna to the IBSC 48, indicating that the IBS 42 is able to format the RF signal received from the handset 24 for transmission over the Internet links 47 to the IBSC 48, see col. 4, lines 55-65, col. 5, lines 4-7, col. 9, lines 28-40).

Regarding **claim 8** as applied to claim 2, Scheinert further discloses wherein the at least one protocol layer encapsulates higher protocol layer information to facilitate protocol requirements over the public network (IBS 42 with a communication interface for communicating with IBSC 48 via Internet 47, using an IP address, indicating at least a protocol layer in the IBS 42 that encapsulates an IP data for transmission of data across the Internet links to the IBSC 48 and vice versa, see figs. 4 and 5, col. 4, lines 55-63, col. 5, lines 4-7, col. 8, lines 16-20).

Regarding **claim 9** as applied to claim 2, Scheinert further discloses wherein at least one protocol layer comprises at least one technology dependent protocol layer (see col. 5, lines 4-15, col. 6, lines 54-67).

Regarding **claim 10** as applied to claim 1, Scheinert further discloses wherein the public network comprises the internet (Internet, see figs. 4 and 5, col. 5, lines 4-7).

Regarding **claim 11** as applied to claim 1, Scheinert further discloses wherein the transceiver unit comprises at least one antenna (see figs. 4 and 5, col. 5, lines 16-17 and lines 49-57) to facilitate communications between the transceiver unit and at least one portable communications device over an air interface (see figs. 4 and 5, col. 5, lines 4-7, 16-17 and lines 49-57).

Regarding **claim 12** as applied to claim 11, Scheinert further discloses wherein the transceiver unit comprises a structure on which the at least one antenna resides (see figs. 4 and 5, col. 5, lines 4-7, 16-17 and lines 49-57).

Regarding **claim 15** as applied to claim 1, Scheinert further discloses wherein the transceiver comprises a structure for housing the communication interface (IBS 42 is connected via internet links to IBSC 48, indicating presence of an interface in the IBS 42 structure, that is attached to the antenna of the IBS 42 and transmits data/information received by the antenna to the IBSC 48, see col. 4, lines 55-63, col. 5, lines 4-7, col. 9, lines 28-32).

Regarding **claim 18** as applied to claim 17, Scheinert further discloses wherein the at least one routine facilitates communication information over the internet (IBS 42

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with a communication interface for communicating with IBSC 48 via Internet 47, see figs. 4 and 5, col. 4, lines 55-63, col. 5, lines 4-7).

Regarding **claim 19** as applied to claim 17, Scheinert further discloses wherein the at least one routine comprises at least one protocol layer adapted to facilitate communication over the public network (IBS 42 with a communication interface for communicating with IBSC 48 via Internet 47, indicating at least a protocol layer in the IBS 42 for communication via the Internet links with the IBSC 48, see figs. 4 and 5, col. 4, lines 55-63, col. 5, lines 4-7).

Regarding **claim 21**, as applied to claim 20, Scheinert further discloses wherein the public network comprises the Internet (Internet, see figs. 4 and 5, col. 5, lines 4-7).

Regarding **claim 22** as applied to claim 1, Scheinert further discloses wherein the transceiver is assigned an IP address to facilitate communications with the access network unit over the undedicated public network (IBS 42 with a communication interface for communicating with IBSC 48 via Internet 47, using an IP address, indicating at least a protocol layer in the IBS 42 that uses an IP address for communication via the Internet links with the IBSC 48, see figs. 4 and 5, col. 4, lines 55-63, col. 5, lines 4-7, col. 8, lines 16-20).

Regarding **claim 24**, as applied to claim 20, Scheinert further discloses wherein transmitting the information packet to the access network unit comprises transmitting the information packet to a base station controller (IBSC 48 receiving information from IBS 42 over the IP network, see col. 4, lines 55-63, col. 5, lines 4-15).

Regarding **claim 25** Scheinert further discloses wherein transmitting the information packet comprises transmitting the information packet using one or more Tu-Txrs protocol layers (IBS 42 with a communication interface for communicating with IBSC 48 via Internet 47, using an IP address, indicating at least a protocol layer in the IBS 42 for communication via the Internet links with the IBSC 48, see figs. 4 and 5, col. 4, lines 55-63, col. 5, lines 4-7, col. 8, lines 16-20).

5. Claims 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Scheinert et al 7,117,015 (hereinafter Scheinert)** in view of **Searle et al 5,603,089 (hereinafter Searle)**.

Regarding **claim 13** as applied to claim 12, Scheinert discloses the claimed limitation except wherein the structure comprises a tower.

In the same field of endeavor, Searle discloses a base station with an antenna that resides on a tower structure (base station antenna arrangement in mast tower, see fig. 3, col. 3, lines 18-20).

It would therefore have been obvious to one of ordinary skill in the art to combine the teaching Searle into the system of Scheinert having the antenna components of the base station reside in a mast tower for the benefit of providing support for the antenna and other electronic components of the antenna.

Regarding **claim 14** as applied to claim 12, Scheinert discloses the claimed limitation except wherein the structure comprises a building.

In the same field of endeavor, Searle discloses a base station with an antenna that resides in building (base station antenna arrangement in a building, see fig. 3, col. 3, lines 18-20).

It would therefore have been obvious to one of ordinary skill in the art to combine the teaching Searle into the system of Scheinert having the antenna components of the base station reside in a building for the benefit of providing support for the antenna and other electronic components of the antenna and shielding the antenna electronics from outside environmental conditions.

6. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Scheinert et al 7,117,015 (hereinafter Scheinert)** in view of **Ketonen (6,104,917)**.

Regarding **claim 16** as applied to claim 15, Scheinert discloses the claimed limitation except wherein the structure comprises a cabinet.

Ketonen however discloses wherein the structure comprises a cabinet (base station transceiver circuitry are housed within a cabinet, see col. 3, lines 13-15).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Ketonen into the system of Scheinert by including wherein the structure comprises a cabinet for the benefit of providing housing for the base station radio components.

1. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Scheinert et al 7,117,015 (hereinafter Scheinert)** in view of **Kowalski et al (6,631,410)**.

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Regarding **claim 6** as applied to claim 2, Scheinert discloses the claimed limitation except wherein the at least one protocol layer provides security information to the network access unit to facilitate secure communication over the public network.

In the same field of endeavor, Kowalski et al teaches wherein the at least one protocol layer (a protocol that employs the MAC layer, see col. 5, lines 41-45) provides security information the network access unit (see col. 5, lines 5-15) to facilitate secure communication over the public network (security, see col. 5, lines 41-45).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Kowalski et al into the system of Scheinert for the benefit of providing secure communications in a wireless network.

Regarding **claim 7** as applied to claim 2, Scheinert discloses the claimed limitation except wherein the at least one protocol layer negotiates quality of service for communications with the access network over the public network.

In the same field of endeavor Kowalski discloses wherein the at least one protocol layer (a protocol that employs the MAC layer, see col. 5, lines 41-45) negotiates quality of service for communications (QoS, see col. 5, lines 41-45) with the access network unit (see col. 5, lines 5-15) over the public network (see col. 5, lines 5-15, 41-45).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Kowalski et al into the

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system of Scheinert for the benefit providing reliable communications to small office/home networks.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

D'Souza 7,072,332 discloses soft switch using distributed firewalls for load sharing voice-over-IP traffic in an IP network.

Naidoo et al 6,930,599 discloses a security system.

Uchida 6,836,665 discloses a mobile unit communication system and a mobile unit communication method that can increase the efficiency of an assignment of a channel of a communication in which a data having a large data amount is transmitted at a high speed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLUMIDE T. AJIBADE AKONAI whose telephone number is (571)272-6496. The examiner can normally be reached on M-F, 8.30p-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on 571-272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

OA

/Wanda L Walker/

Director, Technology Center 2600

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